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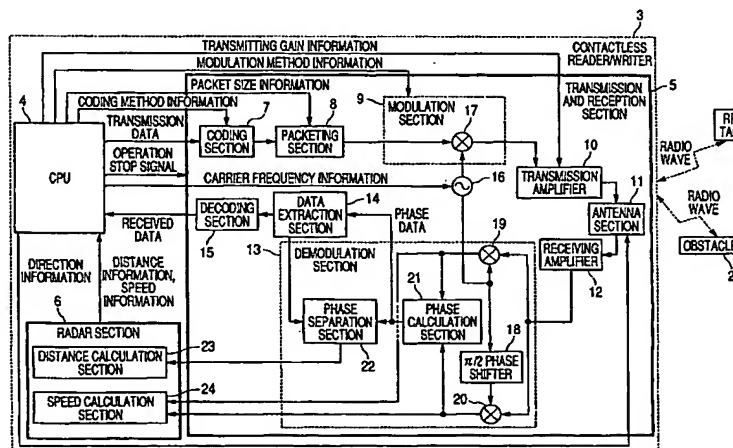
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(54) Title: **CONTACTLESS READER/WRITER**



(57) Abstract: It is an object of the invention to provide a contactless reader/writer comprising a transmission section for transmitting a plurality of transmission signals using carrier waves of different frequencies, a reception section for receiving a plurality of reply signals which are a response to a plurality of transmission signals transmitted by the transmission section, a phase calculation section for calculating phase data of the reply signals on the basis of the reply signals, a distance calculation section for calculating a distance to an object having returned the reply signal, on the basis of the phase data from the phase calculation section and/or a speed calculation section for calculating a frequency component of baseband signals on the basis of the baseband signals acquired from the received signal, and thereby calculating a traveling speed of an object having returned the reply signal on the basis of the frequency component, and a control section for controlling a transmission direction of the transmission signals transmitted from the transmission section.

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